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REMARKS

Claims 1-12, 14-15, and 18-20 are currently pending in the present application. Claims 21-30 have previously been withdrawn. Claims 14, 18, and 19 have been amended. Claims 13, 16, and 17 were previously canceled. Reconsideration of the application is respectfully requested in view of the following responsive remarks.

For the Examiner's convenience and reference, Applicants' remarks are presented in the order in which the corresponding issues were raised in the Office Action.

In the office action of September 11, 2007, the following actions were taken:

(1) Claims 14-15 and 18-19 were rejected under 35 U.S. C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention;

(2) Claims 1-4, 6-12, 14-15, 18, and 20 were rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 6,120,588 (hereinafter "Jacobson") in view of U.S. Pat. No. 4,301,196 (hereinafter "McCormack");

(3) Claim 5 was rejected under 35 U.S.C. 103(a) as being unpatentable over Jacobson in view of McCormack and further in view of JP 08-319575 (hereinafter "Takeda"); and

(4) Claim 19 was rejected under 35 U.S.C. 103(a) as being unpatentable over Jacobson in view of McCormack and further in view of U.S. Pat. No. 3,918,927 (hereinafter "Wells").

It is respectfully submitted that the presently pending claims be examined and allowed.

Rejections Under 35 U.S.C. § 112

The Examiner has rejected claims 14-15 and 18-19 under 35 U.S. C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically, the Examiner has noted that claims 14, 15, and 18 depend from a canceled claim. As such, the Applicant has amended claims 14, 15, and 18 to properly depend from pending claims. Additionally, the Examiner questioned the amendment to claim 19

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and alleged that it is unclear. The Applicant has amended claim 19 to remove any ambiguity. As such, claim 19 now recites that the ink-jetting step further includes a marring step.

As the Applicant has amended the claims to correct the dependency and has removed any ambiguity, the Applicant submits that the present claim set is in proper form and respectfully requests that the Examiner withdraw the present rejection.

Rejections Under 35 U.S.C. § 103

The Examiner has rejected the claims 1-12, 14-15, and 18-20 under 35 U.S.C. 103(a) as being unpatentable over several references.

The Applicant does not deem it necessary to recite the entire case law standard required in order to establish a *prima facie* case of obviousness. However, the Applicant would like to briefly remind the Examiner of the required three criteria for a *prima facie* case of obviousness, namely 1) that the asserted references as modified or combined must teach or suggest each and every element of the claimed invention, 2) that the asserted references as modified or combined must provide a sufficient likelihood of successfully making the modification or combination, and 3) that the Examiner must identify a reason for the modification or combination asserted.

Specifically, the Examiner has rejected claims 1-12, 14-15, and 18-20 as being obvious in view various combinations of Jacobson, McCormack, Wells, and Takeda. As such, a brief description of these references is believed to be in order.

Jacobson

Jacobson teaches electronically active inks for electroless plating. The inks may be applied by an ink jet system. However, as noted by the Examiner, Jacobson does not teach an electroless active layer.

McCormack

McCormack teaches electroless copper deposition. The method includes the use of stannous chloride and palladium chloride.

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Wells

Wells teaches a standard electroplating technique. The Examiner alleges that Wells discloses the use of an acidic palladium chloride solution to mar the surface of the substrate. However, Wells teaches that the acidic palladium chloride solution is used "to remove the tin salts." See col. 11, line 60. As such, Wells does not teach specific marring of the substrate.

Takeda

Takeda teaches the use of  $\text{Pd}(\text{NH}_3)_4\text{Cl}_2$  as a palladium salt for electroless plating over carbon fine grains.

The Examiner has rejected the pending claim set over Jacobson in combination with several references. The rejections include Jacobson as the primary reference in combination with McCormack as a secondary reference. Jacobson teaches an ink jet system for printing inks containing metal ions and a reducing agent. However, as noted by the Examiner, Jacobson does not teach an electroless active layer. It is also pointed out that Jacobson does not ink-jet its ink onto an electroless active layer, nor is the reducing agent contacted with the metal composition on the electroless active layer. The Examiner uses McCormack, which teaches the use of stannous chloride and palladium chloride as a sensitizing and seeding solution, to allegedly cure the at least three missing elements of Jacobson.

The Applicant has previously amended claim 1 to include that the electroless active layer is formed by ink-jetting an electroless initiator. As such, the presently amended claim set contains a fourth element missing from the present combination of references. Specifically, none of the cited references alone or in combination, i.e., Jacobson, McCormack, Wells, and Takeda, teach the step of forming an electroless active layer by ink-jetting an electroless initiator.

As the Examiner has noted, Jacobson does not teach an electroless active layer. Therefore, the Examiner has combined Jacobson with McCormack to cure the deficiency as McCormack allegedly teaches an electroless active layer. However, there is absolutely no teaching in McCormack regarding ink-jetting. Therefore, McCormack alone or in combination with Jacobson does not teach the element of forming an electroless active layer by ink-jetting an electroless active initiator.

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Additionally, Wells contains no teaching of forming an electroless active layer by ink-jetting an electroless initiator and was cited by the Examiner for the teaching of an electroless active layer by etching. Therefore, Wells does not cure the deficiency of Jacobsen and McCormack. Furthermore, Takeda contains no teaching of forming an electroless active layer by ink-jetting an electroless initiator and was cited by the Examiner for the teaching of  $\text{Pd}(\text{NH}_3)_4\text{Cl}_2$  as the metal salt. Therefore, Takeda does not cure the deficiency of Jacobsen and McCormack. As such, the Applicant submits that the present combination of references does not teach each and every element of amended claim 1.

The Examiner has responded to the above arguments that since Jacobson teaches ink-jetting and McCormack teaches an electroless active layer, the combination provides the elements of the pending claim set. Such an argument infers that since an ink-jetting reference teaches ink-jetting, therefore, anything that is ink-jetted would be obvious. However, the Applicant submits that such conclusory arguments cannot serve as a *prima facie* case of obviousness since the Examiner must show that each and every element of the pending claim set is obvious in view of the cited art or the knowledge of one skilled in the art. Such standard has not been met in the present case. Even if the present combination could lead one skilled in the art to ink-jet metal traces on a sensitized substrate (an element not found in either reference individually), the present combination does not teach the step of ink-jetting an electroless active layer. The Applicant contends that the Examiner has used impermissible hindsight in an attempt to reconstruct the present invention. The court has stated that the Applicant's specification cannot be the basis for motivation, i.e., no hindsight reconstruction. Yamouchi Pharmaceutical Co., Ltd. v. Danbury Pharmaceutical, Inc., 231 F.3d 1339, 56 U.S.P.Q.2d 1641 (Fed. Cir.), reh'g denied, 2000 U.S. App. LEXIS 34047 (2000). Accordingly, if a prior art reference is sought to provide a specific element of a claim with the use of hindsight, any rejection based thereon is improper and should be withdrawn.

In view of the foregoing, Applicants believe that claims 1-12, 14-15, and 18-20 present allowable subject matter and allowance is respectfully requested. If any impediment to the allowance of these claims remains after consideration of the above remarks, and such impediment could be removed during a telephone interview, the

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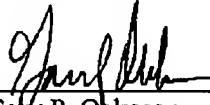
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Examiner is invited to telephone the undersigned attorney at (801) 566-6633 so that such issues may be resolved as expeditiously as possible.

Please charge any additional fees except for Issue Fee or credit any overpayment to Deposit Account No. 08-2025.

Dated this 23<sup>rd</sup> day of October, 2007.

Respectfully submitted,



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